NATURAL HISTORY MISCELLANEA

Published by

The Chicago Academy of Sciences

Lincoln Park-2001 N. Clark St. Chicago 14, Illinois U.S.A.

No. 186

December 28, 1967

A New Snake of the Genus Enulius from Mexico

HOBART M. SMITH,* RUDOLF G. ARNDTt and WADE C. SHERBROOKE+

Among the specimens secured in the summer of 1963 by the junior authors, and now on deposit in the Museum of Natural History of the University of Illinois, is an example of a remarkably distinct new species of the equally distinct genus *Enulius*.

Enulius oligostichus, sp. nov.

Holotype. Univ. Illinois Mus. Nat. Hist. 62740, an adult male taken on Mexico Highway 54 between San Blas, Nayarit, and Mexico Highway 15 (5-15 miles NE San Blas), July 8, 1963. No other specimens known.

Definition and Diagnosis. A member of the genus Enulius, having a slender body, its diameter only one per cent of its total length; pupil round; a short maxilla with two very large, flattened but ungrooved teeth posteriorly and three small teeth anteriorly; no posterior vertebral hypapophyses; dorsal scales smooth; rostral enlarged; anterior chinshields very broad, posterior pair widely separated by an azygous scale. Distinguished from other members of the genus by having the combination of 15 scalerows, single apical pits, five supralabials, 163 ventrals, 82 caudals, uniform dark tan above, white below, no light collar.

Description of holotype. Rostral large **but not** protuberant, its middorsal length equal to length of median prefrontal suture; maximum length of internasals about % maximum width, about / maximum length of prefrontals; latter very large, entering orbit; supraocular small, its maximum length % that of frontal; postocular single, about / size of supraocular; parietals notched at midline, their maximum length (2.8 mm.) equalling the distance from their anterior tip to end of snout, their median suture (1.6 mm.) less than maximum length (2.2 mm.) of frontal. Nasal apparently divided, preseminasal somewhat larger than postseminasal (approximately postocular-supraocular size relationship); loreal large, broader anteriorly than posteriorly, orbital border slightly less than that of prefrontal; no preocular; five supralabials, second and third entering orbit; temporals 1-1, anterior one

^{*}Department of Zoology and Museum of Natural History, University of Illinois, Urbana.

⁺Rudolph G. Arndt, Section of Ecology & Systematics, Division of Biological Sciences, Cornell University, Ithaca, N. Y.

Wade C. Sherbrooke, Universidad Agraria de La Selva, Tingo Maria, Peru.

narrowly contacting third supralabial; scale borders of orbit, in order of increasing size, loreal, second supralabial, prefrontal, supraocular, postocular, third supralabial.

Infralabials apparently six, anterior in contact with its mate, third largest; anterior chinshields very broad but short, their combined width (1.2 mm.) about equal to maximum length (1.1 mm.); posterior chinshields small, separated by an azygous scale somewhat larger than any of the chinshields.

Dorsal scales absolutely smooth, with single apical pits, in 15-15-13 rows, a reduction taking place to 14 at 5 scales anterior to anus, and to 13 at 3 scales anterior to anus, by loss of third scale row; ventrals 163; anal divided; subcaudals 82.

Total length 275 mm.; snout-vent 185 mm.; diameter of body $2.5~\rm x$ $3.5~\rm mm$. Hemipenis with small spines and papillae over its entire surface, slightly bifurcate; no posterior vertebral hypapophyses; two enlarged posterior maxillary teeth, their length equal to greatest diameter of eye; three small anterior maxillary teeth about one third length of posterior teeth; anterior tip of maxilla about even with suture between first and second supralabials.

Color above a uniform dark tan medially, the posterior edges of each scale darker; color becoming lighter on sides, lower two rows sparsely pigmented; no evidence of a collar on neck or head; latter only slightly lighter on sides than above; ventral surfaces white, without melanophores except for a few on infralabials and sparsely scattered ones on distal subcaudal surfaces.

Remarks. Dunn (1938) recognized two species in his review of the genus Enulius: flavitorques with one apical pit, 17 scale rows and 176-216 ventrals, and sclateri (the spelling slateri is a lapsus) with two apical pits, 15 scale rows, 132-151 ventrals and a white nuchal collar sometimes enlarged to cover entire head. Taylor and Smith (1939: 247-248), without access to Dunn's review, recognized the species unicolor and sumichrasti, which Dunn included in the synonymy of flavitorques. Smith (1943: 427) maintained the distinctness of both Mexican species from flavitorques of Central America, pointing out that only in the usual presence of a light collar does flavitorques differ from unicolor, so far as is known at present. Dunn (1938: 416) records a collarless specimen from Panama, one from Nicaragua, and one from Guatemala. It is obvious that, if no further distinctions exist, these two populations are conspecific as Dunn maintained, but the invariable absence of a collar in Mexican specimens as opposed to the usual presence of a collar (or indication thereof) in Central American specimens justifies subspecific recognition.

The status of *Enulius sumichrasti* remains open to question, as its only claim for recognition is a greater enlargement of the rostral than

in *unicolor*. Since this distinction is geographically localized and is unsupported by other differentiae, it is reasonable to assume that *sumi-c hrasti*, too, is subspecifically related to populations of *flavitorques*.

The species here described as *oligostichus*, however, is sharply distinct from other taxa of the genus. It resembles *sclateri* in having 15 scale rows, and *flavitorques* in having single apical pits, but differs from both in having 163 ventrals in a male (166 is the lowest recorded count in male *f. unicolor* and the ventrals vary from 129 to 151 in *sclateri*). It has 82 caudals (85 minimum in *flavitorques*, 96 in *sclateri*), five instead of seven supralabials, and a posterior reduction of scalerow count. It is of interest that a 17-scalerow species is flanked to both north and south by a 15-scalerow species, and that each of the latter has one or more specialized characters. It may be assumed that *flavitorques* (and particularly *f. unicolor*) approximates the ancestral population of the genus, and that *sclateri* and *oligostichus* represent somewhat parallel but unrelated peripheral derivatives of the ancestral stock.

E. oligostichus represents the northernmost area occupied by the genus, where it occurs dichopatrically, separated by about 150 miles from the northernmost record of E. f. unicolor 2.7 mi. W El Rincón, Jalisco (35 mi. N Santiago, Colima), provided by Hensley and Lannom (1966: 232).

The holotype is dehydrated about the head, preventing presentation of a drawing of the head scales, and has a small, excised soft spot in the posterior abdominal region which required circumvention in counting ventrals by extrapolation from the dorsal scales. The technique used for counting ventrals is nevertheless thought to be fully accurate. The terminal half-inch of the tail is also almost completely severed, but the scales are completely represented. The tip of tail is blunt, suggesting that part of the original might have been lost, but it agrees so well with the peculiar form of the tip of tail in a good series of presumably intact-tailed *E. f. unicolor*, with which it was compared, that we assume the tail is actually complete.

The present species requires alteration of the generic diagnosis only in extending the known range of caudals from 85 to 82, and by reduction of scalerows posteriorly from 15 to 13.

The name oligostichus is derived from the Greek words oligos, meaning few, and stichos, a row of things (fide Jaeger's Source Book of Biological Names and Terms), applied in reference to the reduced number of scalerows characteristic of the species. The name is used as an adjective in the masculine gender, modifying the masculine name Enulius.

KEY TO THE TAXA OF THE GENUS Enulius

1. Seventeen scalerows at midbody; one apical pit; 166-216 ventrals; 85-111 caudals; 7 supralabials -----2

- 3. Length of portion of rostral visible from above nearly or quite equal to its distance from frontal; in lateral view, upper edge of snout straight ---flavitorques sumichrasti Length of portion of rostral visible from above two-thirds or less its distance from frontal; in lateral view, upper edge of snout distinctly down-curved -flavitorques unicolor
- 4. Seven supralabials; 129-151 ventrals; two apical pits; 15 scalerows throughout; a light nuchal collar, sometimes covering entire head; caudals 96-100 *sclateri* Five supralabials; 163 ventrals in only known specimen; one apical pit; 13 scalerows at extreme posterior; no light collar, or evidence thereof, anteriorly; caudals 82 in only known *specimen___oligostichus*

LITERATURE CITED

- Dunn, Emmett Reid. 1938. The snake genus *Enulius* Cope. Proc. Acad. Nat. Sci. Philadelphia, 89: 415-418 (1937) .
- Hensley, M. Max, and Joseph R. Lannom. 1966. Noteworthy snake records for the Mexican states of Colima, Jalisco and Nayarit. Herpetologica, 22 (3): 231-235.
- Smith, Hobart M. 1943. Summary of the collections of snakes and crocodilians made in Mexico under the Walter Rathbone Bacon Traveling Scholarship. Proc. U. S. Nat. Mus., 93: 393-504, figs. 13-15, pl. 32.
- Taylor, Edward H., and Hobart M. Smith. 1938. Miscellaneous notes on Mexican snakes. Univ. Kansas Sci. Bull., 25: 239-258, figs. 1-4, pl. 23.